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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/247,343 02/08/99 ROUNDHILL

D ATL-187

EXAMINER

QM12/0103

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TAMDRSKI, F

ART UNIT

PAPER NUMBER

3737
DATE MAILED:

01/03/01

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/247,343

Applicant(s)

Roundhill et al

Examiner

Jaworski

Group Art Unit

3737

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 3-5-99
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-27 is/are pending in the application.
Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 17-25 is/are allowed.
- ☒ Claim(s) 1, 3-4, 7-16, 26 is/are rejected.
- ☒ Claim(s) 2, 5-6, 27 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2, 3 (3 sheets) ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 1 sheet ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

Office Action Summary

Art Unit: 3737

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3 - 4, 7 - 16, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arditi (US5,526,816). Arditi is argued to provide an image characterizable as 'blended' insofar as col. 6 line 36 - col. 7 line 33 suggests arithmetic and/or logic combinations so as to produce a composite image of fundamental and harmonic components so as to highlight contrast agent effects. Note that whereas harmonics typically would be emphasized in deep tissue, the location where harmonic emphasis would occur within the image would be fortuitously related to the location of collecting of contrast agent within the region under study.

Allowable Subject Matter

3. Claims 2 and 5 - 6²⁷ are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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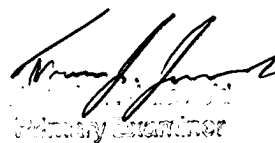
4. Claims 17 - 25 are allowed.

Zhao (US5897500) and Zhao et al (US6048316) of ineffective date are cited to show the state of the art regarding blended fundamental and harmonic imaging.

Any inquiry concerning this communication should be directed to Examiner Francis J. Jaworski at telephone number (703) 308-3061.

FJJ:fjj

12-29-00



Francis J. Jaworski